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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,957	02/09/2004	Naga Bhushan	030352	1612

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QUALCOMM INCORPORATED  
5775 MOREHOUSE DR.  
SAN DIEGO, CA 92121

EXAMINER
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NGUYEN, HANH N

ART UNIT	PAPER NUMBER
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2416

NOTIFICATION DATE	DELIVERY MODE
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02/04/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/775,957	<b>Applicant(s)</b> BHUSHAN ET AL.	
	<b>Examiner</b> Hanh Nguyen	<b>Art Unit</b> 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-33 is/are allowed.
- 6) ☒ Claim(s) 1-10, 34-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

Claims 1, 34, 46 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory “process” under 35 U.S.C. 101 must (1) be tied to particular machine, or (2) transform underlying subject matter (such as an article or material) to a different state or thing. See page 10 of *In Re Bilski* 88 USPQ2d 1385. The instant claims are neither positively tied to a particular machine that accomplishes the claimed method steps nor transform underlying subject matter, and therefore do not qualify as a statutory process.

Claim 1 includes the method including steps of “receiving indications of signal quality associated with a plurality of user stations; selecting a first user station and a second user station to receive data from a base station, based on the indications of signal quality; constructing a first packet containing signaling data for the first user station and application data for the second user station; super-imposing a second packet upon the first packet, the second packet containing application data for the first user station” are broad enough that the claim could be completely performed mentally, verbally or without a machine nor is any transformation apparent. Applicant is required to amend the claim such that for each limitation/step, there is a physical structure/hardware performing the function.

Claims 2-10 are rejected because they depend on claim 1.

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Claim 34 includes the method including steps of “receiving indications of signal quality associated with a plurality of user stations; selecting, from the plurality of user stations, a set of K user stations to receive data from a base station, based at least in part on the indications of signal quality received;” are broad enough that the claim could be completely performed mentally, verbally or without a machine nor is any transformation apparent. Applicant is required to amend the claim such that for each limitation/step, there is a physical structure/hardware performing the function.

Claims 35-39 are rejected because they depend on claim 1.

Claim 46 includes the method including steps of “retrieving signaling data for the first user station from the first packet; and extracting application data for the first user station from the second packet using the signaling data retrieved from the first packet”.

Claims 47, 48 are rejected because they depend on claim 1.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 34, 35, 40, 41, 46-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walton et al. (US Pat. 7,047,016 B2) in view of Jaenecke et al. ( US Pat. 7,028,093 B2), and further in view of Shattil ( US Pat. 7,317,750B2).

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In claims 34 and 40, Walton et al. discloses a method for processing data, comprising: receiving indications of signal quality associated with a plurality of user stations; selecting, from the plurality of user stations, a set of K user stations to receive data from a base station, based at least in part on the indications of signal quality received ( see fig.3, col.10, lines 45-50; steps 315, 316, 318; the SNRs of the transmitted signals from terminals are estimated to select the terminals with the best SNRs for data transmissions with base station; see col.6, lines 7-25). Walton does not disclose transmitting multiple packets that are superimposed together from the base station to the K user stations, wherein the multiple packets are superimposed using superposition coding.

Jaenecke et al. discloses, see col.4, lines 52-60; users data packets are coded with at least one communication code and transmitted parrallel in time with to the reference data packets and superimposed on these). It is implied in Jaenecke et al. that the superpostion coding must be used when users data packets are coded with at least one communication code and superimposed on the reference data packets. To show that a superposition coding is used in the art, Shattil discloses an orthogonal superposition coding ( see heading) used between base station and subscriber ( see fig.13A, 13B, col.28, lines 30-60 wherein the base station selects modulation scheme, different coding rates for transmsion to subscribers based on channel conditions). Therefore, it would have been obvious to one skilled in the art to apply the transmission of superimposed packets using superposition coding of Shattil and Jaenecke et al. into

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Walton in order to transmit superimposed packets from base station to users. The motivation is to serve multiple users having multiple signal quality at the same time.

In claims 46 and 49, the combination of Walton and Jaenecke et al. discloses receiving multiple packets that are superimposed together at a first user station, the multiple packets including a first packet and a second packet ( see claims 34 and 40). Jaenecker et al. discloses retrieving signaling data for the first user station from the first packet; and extracting application data for the first user station from the second packet using the signaling data retrieved from the first packet (the specification on paragraph [0065] defines application data and signaling data as SINR. Therefore, see jaenecker et al. in col.4, line 60 to col.5, line 20; process the reference packet by measuring SINR of the reference packet with a predetermined SINR range to request the terminal to adjust its transmit power for the next reference packet). Therefore, it would have been obvious to one skilled in the art to apply the teaching of jaenecker into Walton in order to reduce transmission error rate and help the base station receiving better signal Quality from users.

In claims 47 and 48, Walton et al. discloses information processing parameters such as coding and modulation parameters ( see fig.5, col.18, lines 30-45; each terminal determines coding and modulation scheme).

In claim 50, Walton et al. discloses a decoder processing application data ( see fig.8A, col.22, lines 40-50; decoder 820A decodes data streams)

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IN claim 35 and 41, from the missing of Walton, Jaenecke ety al. discloses the user data packet comprises polling signals for service on demand applications, selection signal for Internet sites (see col.3, lines 42-45; application information in a packet of the superimposed packets). Therefore, it would have been obvious to one skilled in the art to use application information as shown in Jaenecke into Walton in order to construct a user packet for a respective user.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-50 have been considered . Claims 11-33 are allowed. Claims 1-10, 34-39 are rejected under 101 nonstatutory. Claims 34, 35, 40, 41, 46-50 are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-FRiday from 8:30 to 4:30. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on 571 272 3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Hanh Nguyen/

Primary Examiner, Art Unit 2416